

426/15

~~1875~~
1857
①Mashing
oxalic acid
acid

RECORDED



A.D. 1857 N° 1895.

Preparation of Beverages.

LETTERS PATENT to Thomas Frederick Henley, of Bromley, in the County of Middlesex, for the Invention of "IMPROVEMENTS IN THE PREPARATION OR MANUFACTURE OF CERTAIN BEVERAGES OR LIQUORS OF THE NATURE AND CHARACTER OF HOME-MADE WINES, AND IN THE MEANS OF OBTAINING THE SAME."

Sealed the 8th January 1858, and dated the 8th July 1857.

PROVISIONAL SPECIFICATION left by the said Thomas Frederick Henley at the Office of the Commissioners of Patents, with his Petition, on the 8th July 1857.

I, THOMAS FREDERICK HENLEY, of Bromley, in the County of Middlesex, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN THE PREPARATION OR MANUFACTURE OF CERTAIN BEVERAGES OR LIQUORS OF THE NATURE AND CHARACTER OF HOME-MADE WINES, AND IN THE MEANS OF OBTAINING THE SAME," to be as follows:—

This Invention consists in the employment of rice in the preparation of certain beverages or liquors of the nature of home-made wines, and in improved means and processes for obtaining such said beverages, as follows:—

For carrying out my Invention I commence by thoroughly cleansing the rice proposed to be operated on by any of the usual methods employed in rice cleaning, but which operation forms no part of this Invention. In the next stage of the process I employ a vessel, which may be of wood or

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other material calculated to withstand the action of the acid employed, and of dimensions proportioned to the quantity of rice proposed to be treated according to the process. Within this vessel is fitted a steam worm, having a heating surface calculated to maintain the liquor operated on at the boiling temperature. I also place therein a revolving apparatus, of the nature of a rouser or 5 agitator, which may or may not be fitted at its lower part with heavy wooden or other rollers, so fitted as to revolve freely on their axis and in contact with the bottom of the vessel during the rotation of the said rouser, and in such manner as to produce a levigating action therein. On the top of the above-described preparing vessel I cause to be fitted a feed apparatus, intended 10 to deliver the rice to be operated on into the said preparing vessel in measured portions, and which is so combined or arranged as to afford the calculated supply, notwithstanding that there may be a pressure existing from within outwards in the said vessel. This may be accomplished by various mechanical arrangements, or by hand if preferred, the principle involved being 15 to supply the rice in its ordinary state, so as to economize the process of grinding, crushing, or such other preparatory manipulation. The preparing vessel as aforesaid may also be fitted with a man-hole, discharge valve, two loaded valves, and reverse valve, testing cocks, and glass gauges. The said apparatus being complete and ready for the operation, I place within the said 20 preparing vessel about four times the weight of the rice intended to be operated upon, of water containing four per cent. of the weight of the rice of oxalic acid, but I do not confine myself to that specific quantity, only preferring that proportion for the purposes in view, nor do I confine myself to this acid, as I may also employ the mineral acids; but I prefer the acid aforesaid, as I 25 find it to yield a superior flavoured product to that obtained by other means. The water aforesaid being brought to the boiling temperature, the rouser and feed apparatus are now to be put in motion, and the rice to be operated on gradually fed in at such a rate and in such proportions as may extend over a period of three or four hours, according to the judgement of the operator or 30 the particular quality which it may be desirable to give to the liquor in its finished state. Into the liquor so prepared as above I now cause to be added a sufficiency of pulverized pure limestone or marble, or carbonate of lime, so as to saturate the excess of acid in the said liquor. The latter may now be run off into a lower vessel, and the salt of lime and residue of the rice 35 allowed to subside, and the liquid then run through a set of Schröder's patent filters, or other extensive filtering surfaces, in such manner as to produce a perfectly limpid liquor, which is now to be cooled down by allowing it to pass through refrigerator pipes, so as to reduce the temperature as rapidly as

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possible to about 65 to 70 degrees Fahrenheit. The liquor so prepared forms the body or material of the manufacture, and which, when carefully and skilfully prepared, forms a pure and neutral basis or elementary matter well adapted to the purpose of forming wholesome liquors or artificial wines of
5 almost any desired quality, by adding thereto the residues or preparations thereof containing the essential oils and flavouring matters of the various continental wines; for instance, with the rape of port wines I can produce the flavour of the wines of Portugal; with the various rapes or prepared wine lees of the French, Spanish, and German grapes I give the desired flavour,
10 or I may employ our home-grown fruits or extracts. The liquor so prepared is now to be placed in suitable vessels and conditions for fermentation, which process may be conducted according to the well-known rules and usages, and which forms no part of this Invention. By the above-detailed process very pure and perfect wines may be obtained either of the dry or of the
15 efferversing class, according to the skill and objects of the manufacturer.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Thomas Frederick Henley in the Great Seal Patent Office on the 8th January 1858.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, THOMAS
20 **FREDERICK HENLEY**, of Bromley, in the County of Middlesex, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Eighth day of July, in the year of our Lord One thousand eight hundred and fifty-seven, in the twenty-first year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the
25 said Thomas Frederick Henley, Her special licence that I, the said Thomas Frederick Henley, my executors, administrators, and assigns, or such others as I, the said Thomas Frederick Henley, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and
30 lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "**IMPROVEMENTS IN THE PREPARATION OR MANUFACTURE OF CERTAIN BEVERAGES OR LIQUORS OF THE NATURE AND CHARACTER OF HOME-MADE WINES, AND IN THE MEANS OF OBTAINING THE SAME,**" upon the condition (amongst others)
35 that I, the said Thomas Frederick Henley, my executors or administrators,

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by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent. 5

NOW KNOW YE, that I, the said Thomas Frederick Henley, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say:—

This Invention consists in the employment of rice in the preparation of 10 certain liquors, of the nature of home-made wines, and in improved means and processes for obtaining the same.

For carrying out my Invention, I commence by thoroughly cleansing the rice proposed to be operated on by any of the usual methods employed in rice cleaning, but which operation forms no part of this Invention. In the 15 next stage of the process I employ a vessel which may be made of wood or other material calculated to withstand the action of the acid employed, and of dimensions proportioned to the quantity of rice proposed to be treated according to the process. Within this vessel is fitted a steam worm, having a heating surface calculated to maintain the liquor operated upon at the 20 boiling temperature. I also place therein a revolving apparatus, of the nature of a rouser or agitator, which may or may not be fitted at its lower part with heavy wooden or other rollers, so fitted as to revolve freely on their axis and in contact with the bottom of the vessel during the rotation of the said rouser, and in such manner as to produce a levigating action therein. On the top of the 25 above-described preparing vessel, I cause to be fitted a feed apparatus, intended to deliver the rice to be operated upon into the said preparing vessel in measured portions, and which is so combined or arranged as to afford the calculated supply, notwithstanding that there may be a pressure existing from within outwards in the said vessel. This may be accomplished by various mechanical 30 arrangements, or by hand if preferred, the principle involved being to supply the rice in its ordinary state, or simply crushed as a preparatory manipulation. The preparing vessel as aforesaid may also be fitted with a man-hole, discharge valve, two loaded or pressure valves loaded to a pressure of from two to three pounds per square inch, reverse or vacuum valve, trial cocks and glass 35 gauges. The said apparatus being complete and ready for the operation, I place within the said preparing vessel about four times the weight of the rice intended to be operated upon, of water containing about four per cent of the weight of the rice of oxalic acid; but I do not confine myself to that specific

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quantity, only preferring that proportion for the purposes in view, nor do I confine myself to this description of acid, as I may also employ the mineral acids; but I prefer the acid aforesaid, as I find it to yield a superior flavored product. The water aforesaid being brought to the boiling temperature, the
5 rouser and feed apparatus are now to be put in motion, and the rice to be operated on gradually fed into the said vessel, in such proportion as may extend the operation over a period of from six to ten hours, according to the judgment of the operator, or the particular quality which it may be desirable to give to the wine or liquor in its finished state. Into the liquor so prepared
10 as above, I now cause to be added a sufficiency of pulverised pure limestone or marble, or carbonate of lime, so as to saturate or nearly saturate the acid employed; the said liquor may now be run off into a suitable receiver, and the salt of lime and residues of the rice allowed to subside, the finer portion of the liquor drawn off, and the residues washed, drained, and pressed, so as to
15 extract therefrom as much as possible of the combined liquid. The said liquid or liquids are now to be run through a set of Schroeder's patent or other extensive filtering surfaces, in such manner as to produce a perfectly limpid liquor, which may now be concentrated, in any of the ordinary methods, to the specific gravity which it may be desirable to give to the intended wine or
20 liquor. The liquor so prepared forms the basis or material of the manufacture, and which, when carefully and skilfully prepared, forms a pure and neutral liquor or elementary matter, well adapted to the purpose of forming wholesome liquors or artificial wines of almost any desired quality, by adding thereto the residues or preparations thereof containing the essential oils and
25 flavoring matters of the various continental wines; for instance, with the rape of port wines, and argol thereof, I can produce the flavour of the wines of Portugal; with the various rapes or prepared wine lees of the French or Spanish grapes, I give the desired flavour; or I may employ our home-grown fruits, extracts, or essences; or I may prepare my aforesaid basis liquor of rice
30 for such artificial wines, by employing the rice in a ground state mixed with about six times its weight of water, and about one-fifth or one-sixth of its weight of ground or crushed malt, maintaining the whole at a temperature of about one hundred and sixty degrees of Farenheit's thermometer for a period of from six to ten hours, according to the judgement of the manufacturer.
35 The basis liquor so prepared may be filtered and concentrated to the desired degree, in the same manner as before detailed. The basis liquor so prepared by either of the above processes is now to be rapidly cooled down by allowing it to pass through refrigerator pipes, so as to reduce the temperature as rapidly as possible to about 65° to 75° of Farenheit's scale, when it may be

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passed into the fermenting tun or tuns, and the process of fermentation therein conducted according to the well-known usages of the art.

Having now fully described the nature and objects of my said Invention, together with the best means I am acquainted with for carrying the same into practical effect, I hereby declare, that what I claim herein as my Invention 5 is the preparation of artificial wines or liquors, of the nature of home-made or British wines, from rice, as the basis or elementary material.

In witness whereof, I, the said Thomas Frederick Henley, have hereunto set my hand and seal, this Eighth day of January, in the year of our Lord One thousand eight hundred and fifty-eight. 10

T. F. HENLEY. (L.S.)

Witness,

ALEX. PRINCE, Patent Agent,
4, Trafalgar Square, Charing Cross.

LONDON:

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